

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

PROGRAM AREA _____

1. Catalog Description of the Course. *[Include the course prefix, number, full title, and units. Provide a course narrative using underline for deletions and CAPITALS for additions including prerequisites/corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

PHYS 434. INTRODUCTION TO BIOMEDICAL IMAGING (3 4)

THREEwo hours of lecture and two hours of lab activity per week, including two field trips per course.

Prerequisite: BIOL 210 or PHYS 200.

The course will present an overview of biomedical images and imaging systems. The fundamental concepts used in several imaging modalities (such as projection radiography, mammography, DEXA, computed tomography, ultrasonography and magnetic resonance imaging) will be examined: the emphasis will be on an intuitive and descriptive presentation of the main components of these systems. Image formation and reconstruction will be addressed. The resulting clinical images will be correlated with the underlying structure and function of the organs, and the diagnostic utility and limitations of the images will be considered.

Same as BIOL 434, HLTH 434.

GenEd: B2, E and Interdisciplinary

BIOL 434. INTRODUCTION TO BIOMEDICAL IMAGING (3 4)

THREEwo hours of lecture and two hours of lab activity per week, including two field trips per course.

Prerequisite: BIOL 210 or PHYS 200.

The course will present an overview of biomedical images and imaging systems. The fundamental concepts used in several imaging modalities (such as projection radiography, mammography, DEXA, computed tomography, ultrasonography and magnetic resonance imaging) will be examined: the emphasis will be on an intuitive and descriptive presentation of the main components of these systems. Image formation and reconstruction will be addressed. The resulting clinical images will be correlated with the underlying structure and function of the organs, and the diagnostic utility and limitations of the images will be considered.

Same as PHYS 434, HLTH 434

GenEd: B2, E and Interdisciplinary

HLTH 434. INTRODUCTION TO BIOMEDICAL IMAGING (3 4)

THREEwo hours of lecture and two hours of lab activity per week, including two field trips per course.

Prerequisite: BIOL 210 or PHYS 200.

The course will present an overview of biomedical images and imaging systems. The fundamental concepts used in several imaging modalities (such as projection radiography, mammography, DEXA, computed tomography, ultrasonography and magnetic resonance imaging) will be examined: the emphasis will be on an intuitive and descriptive presentation of the main components of these systems. Image formation and reconstruction will be addressed. The resulting clinical images will be correlated with the underlying structure and function of the organs, and the diagnostic utility and limitations of the images will be considered.

Same as PHYS 434, BIOL 434

GenEd: B2, E and Interdisciplinary

2. Mode of instruction

	<u>Existing</u>				<u>Proposed</u>		
	<u>Units</u>	<u>Hours Per Unit</u>	<u>Benchmark Enrollment</u>		<u>Units</u>	<u>Hours per Unit</u>	<u>Benchmark Enrollment</u>
Lecture	_2_	_1_	_20_	Lecture	_3_	_1_	_20_
Seminar	_____	_____	_____	Seminar	_____	_____	_____
Laboratory	_____	_____	_____	Laboratory	_____	_____	_____
Activity	_1_	_2_	_20_	Activity	_1_	_2_	_20_

3. Course Content in Outline Form if Being Changed. *[Be as brief as possible, but use as much space as necessary]*

